

CLAIMS :

1. A video decoding method for the decompression of an input coded bitstream corresponding to an original video sequence that had been divided into successive groups of frames (GOFs) and coded by means of a subband video coding method comprising, in each GOF of said sequence, at least the following steps :

- a temporal filtering step, performed on each successive couple of frames ;
- a spatial analysis step, performed on said filtered sequence ;
- an entropy coding step, performed on said analyzed, filtered sequence, the

coded bitstream thus generated being organized in n sub-bitstreams that respectively correspond to the subbands useful at the decoding side to reconstruct the first couple of frames of the current GOF and, successively, the $(n-1)$ other couples of frames ; said decoding method being characterized in that it comprises :

- on the one hand, for the reconstruction of said first couple of frames of said current GOF, the sub-steps of :

- decoding each current bit b of the current sub-bitstream of said coded bitstream ;

- interpreting each decoded bit as containing a significance information related to one or several pixels in a given spatio-temporal subband or a set of such subbands ;

- testing the contribution of said subband(s) to the reconstruction of said first couple of frames and storing only the decoded bits that contain information related to other frames than the frames of the first couple of frames, said stored bits forming a so-called sub-sampled portion of bitstream ;

- reconstructing said first couple of frames ;

- on the other hand, for the reconstruction of said $(n-1)$ other couples of frames of the current GOF, the sub-step of decoding the current subbands by combining the previous sub-sampled portion and the new current sub-bitstream of said coded bitstream according to the following rules :

- the decoding sub-step of said previous sub-sampled portion is only carried out in order to retrieve the associated information that concerns the newly decoded subband(s) ;

- when decoding a bit b , if it is interpreted as containing information exclusively about the newly decoded subband(s), it is stored and replaced,

by means of a switching operation, by the next bit in the new current sub-bitstream of the coded bitstream ;

- when continuing the decoding of the bits in said new current sub-bitstream, it is switched back to the previous sub-sampled portion and its last non-decoded stored bit as soon as a bit of said new current sub-bitstream is interpreted as containing information about other subbands than the newly decoded ones ;

- storing simultaneously the next sub-sampled portion of bitstream, which is a combination of the bits of said previous sub-sampled portion and said new current sub-bitstream and does not include the bits that will not be needed any longer ;

said decoding method being thus applied in order to reconstruct successively each couple of frames of the current GOF, up to the last one.

2. A video decoding device for the implementation of said decoding method.